

4076

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Florida*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. **4076**

LOCALITY:

East Coast of Florida
South End of
Biscayne Bay and
vicinity.

1919

CHIEF OF PARTY:

H. Leybold & J. E. Oleson.

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DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET (2)

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Shore Party at Miami, Fla., under Capt. Harry Leypoldt, Jr. H. & G. Eng

From position 51 E' to 55 E' (Launch Cracker), the line runs thru a dredged channel. A bank, partly bare at low water, runs along the south side of this channel, and a six or seven foot spoil bank runs along the north side. A hydrographic survey of the area on the sides of this channel could not be made, on account of the shallowness of the water.

From position 3 E' to 7 E' (Launch Cracker), the line runs thru a dredged channel. On both sides of the channel are spoil banks. These banks are dry at low water to within 400 meters of the shore. For the remaining 400 meters to the shore the banks are dry at high water.

On account of the shallowness of the water between parallels 25° 35' and 25° 38', it was impossible to make a complete hydrographic survey of the area near the shore. An attempt was made to sound the area between Chicken Key and the main shore, but an opening to this area could not be found.

South of Key Biscayne as far as parallel 25° 35' there are several large areas over which no lines could be run, due to their shallowness.

Along the north shore of the harbor north and east of signal Yel a depth of six to seven feet can be carried. This is a dredged harbor. In the middle of the harbor only a depth of 2 to 3 feet can be carried. A few small clumps of mangroves appear inside the harbor. Owing to the lack of signals, a hydrographic survey of this harbor could not be made.

Respectfully submitted,

William M. Scaife,

D. O.

HYDROGRAPHIC SIGNALS
SHEET 2
Miami, Fla. and Vicinity

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Name	Description				
Bar	Banner				
Beak	Cape Florida Shoal Light	25-38	80-08	810.0	268.8
Ber					
Bil	Banner				
Blak	Black Beacon No.	25-42	80-11	376.6	1114.4
Bob	Banner				
Cape	Cape Florida Lt.	25-39	80-09	1812.6	625.0
Coco	Single Coconut Tree, Banner	25-40	80-09	790.0	417.0
Deer	Deering's Flgstff., Boat house	25-44	80-12	838.5	1102.1
Fow	Fowey Rocks B'n.	25-35	80-06	1192.4	1480.4
Gul					
Lad	Banner				
Ley	Banner				
Lit	Fowey Rocks Lt.	25-35	80-05	782.0	1373.0
Look	Lookout Tower				
Lot	Elliott's Beach, Signal	25-41	80-14	777.3	1639.7
Mag	Signal				
Mat	White Tower				
New	Signalx				
Oke	Signalx				
One	Signal				
Pal	Banner				
Pet	Pile Bn. No.				
Red	Red Bn.				
Roof	South Corner of roof of house, Key Biscayne				
Shed	Square tower near Mattheson's place, West shore Key Biscayne				
Sol	Soldiers Key, highest tree	25-35	80-09	775.9	1113.8
Tip	Banner				
Tuf	Black Ledge Pile Bn.				
Two	Banner				
White	White Bn. No.	25-42	80-13	688.0	982.2
Yel	N.W. Corner, Mattheson's House, Key Biscayne	25-41	80-10	252.0	1170.0
15	Bn.	25-39	80-11	1300.0	962.0
22	Bn.	25-39	80-09	400.0	248.0

Date.1919.	Letter	Positions	Soundings	Stat.Miles	Launch (Green Letter)
Jan.17	A	42	484	10	Gray Duck
Jan.21	B	57	648	13	Gray Duck
Jan.23	C	105	1170	29.5	Gray Duck
Jan.24	D	106	1179	28.5	Gray Duck
Jan.25	E	20	131	4	Gray Duck
Jan.30	F	125	1360	29	Gray Duck
Jan.31	G	75	717	16	Gray Duck
Feb.3	H	91	1050	26	Gray Duck
Feb.4	J	65	763	18.5	Gray Duck
Feb.5	K	80	701	24.5	Gray Duck
Feb.6	L	51	422	14	Gray Duck
Feb.7	M	78	531	16.5	Gray Duck
Feb.10	N	44	489	11	Gray Duck
Feb.11	P	40	554	12	Gray Duck
Feb.12	Q	75	531	14	Gray Duck
Feb.13	R	160	1177	27	Gray Duck
Feb.18	S	82	432	16.5	Gray Duck

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

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STATISTICS SHEET No. 2

Date, 1919	Letter	Positions	Soundings	Statute Miles	Launch (Red letter)
Jan. 15	A	80	727	17.5	Cracker
Jan. 17	B	24	207	5.	Cracker
Jan. 23	C	112	2025	31.5	Cracker
Jan. 27	D	9	34		Cracker
Jan. 28	E	100	792	19.5	Cracker
Jan. 29	F	64	504	12.5	Cracker
Jan. 30	G	86	1404	22.5	Cracker
Feb. 3	H	112	1010	23.75	Cracker
Feb. 4	J	164	726	18.	Cracker
Feb. 5	K	114	1086	26.5	Cracker
Feb. 6	L	67	726	15.5	Cracker
Feb. 7	M	80	888	15.	Cracker
Feb. 11	N	91	636	16.	Cracker
Feb. 13	P	136	943	17.25	Cracker
Feb. 14	Q	23	150	3.	Cracker
Feb. 17	R	107	816	13.	Cracker
Feb. 18	S	101	684	17.75	Cracker
Feb. 19	T	98	810	15.	Cracker
Feb. 24	U	143	980	26.25	Cracker
Feb. 25	V	120	720	12.	Cracker
Feb. 27	W	116	1970	23.	Cracker
Mar. 3	X	116	1400	18.	Cracker
Mar. 4	Y	11	100	1.5	Cracker
Mar. 10	Z	134	1320	24.5	Cracker
Mar. 11	A'	126	960	23.5	Cracker
Mar. 22	B'	87	600	15.0	Cracker
Mar. 24	C'	159	900	21.0	Cracker
Mar. 25	D'	120	700	16.0	Cracker
Mar. 26	E'	58	780	10.0	Cracker

ADDRESS THE SUPERINTENDENT
U. S. COAST AND GEODETIC SURVEY

(COPY).

AND REFER TO NO. 41-ACC

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

July 25, 1919.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
17 volumes of Sounding records for

HYDROGRAPHIC SHEET 4076

South End of Biscayne Bay, and vicinity Fla.
Harry Leypoldt in 1919.

Plane of reference is
Mean low water, reading

1.5 ft. on tide staff at Cape Florida.
2.6 ft. on tide staff at Cutler.
-0.5 ft. on tide staff at Government Cut.

(Signed) G. T. Rude.
Chief, Section of Tides
and Currents.

SECTION OF FIELD RECORDS

Report on

HYDROGRAPHIC SHEET No. 4076

Surveyed in 1919.

Chief of Party H. Leypoldt; Surveyed by H. L. and F. E. Okeson.

Protracted by H. Leypoldt and F. M. Albert Soundings plotted by Field Party

Verified & inked by J. D. Torrey

1. Do the records conform to the requirements of the General Instructions? Note defects. The first line after the position was not always left blank.
2. Does the plan and character of development fulfill the requirements of the General Instructions? Yes, except fuller development needed in southwest part of sheet and on the coral banks south of C. Florida.
3. Does the plan and extent of development satisfy the specific instructions? Yes.
4. Are the sounding line crossings adequate? Very good.
5. Can the usual depth curves be completely drawn? Not on coral banks south of C. Florida.
6. Was field plotting completed to the extent prescribed in General Instructions? Note omissions. Yes.
7. Did office draftsmen have to do over any part of drafting done by field party? The soundings were plotted without any regard to recorded time intervals, and all the plotting (17 Vols.) had to be done over by the office draftsmen.
8. Are the junctions with adjacent sheets satisfactory? Yes.
9. Is further surveying required to fully develop important areas within the limits of the sheet? The north and south channel inside of Fowey Rocks probably has additional coral heads and should be dragged. See paragraph 2.
10. Remarks: The coral banks, extending southward of C. Florida, are not bare at low water as shown on the charts. There are numerous channels through the banks, but they are not clearly defined by either the old or new surveys.
11. Rating of the work ((a) Character and scope of the surveying: Good.
((b) Field drafting (quality): Protracting, excellent; plotting of soundings, worthless.
(Excellent, good, fair, poor.)

H.4076

12. Reviewed by: E. P. Ellis - - - - - Date: August 19, 1920.
13. Two copies of this report to be sent to H. & T. Division

Hydrographic Sheet No. 4076.

Biscayne Bay and vicinity, "Florida".

This sheet was protracted and pencil plotted by the field party and has been carefully verified.

The protracting appears to be carefully done, as but few errors were found: The plotting, however, was found so badly done that it became necessary to replot the sheet throughout. To all appearances all time spacing in plotting was done without use of dividers. In other words, spaced by eye. This conclusion was arrived at when, in a number of cases, more soundings were plotted between the records called for and other cases where less soundings than called for in the records were spaced equidistant or as near so as the plotter could guess. This would make but little difference in flatter or more even bottom but in the uneven and closer sounded areas it resulted in bad crossings.

The sounding lines, except in a few cases, are sufficient to develop conditions well; In my opinion, however, the series of shoals running north and south between $80^{\circ}9'$ - $80^{\circ}11'$ should have been sufficiently developed to show the 6 ft curve and possibly the low water curve. As it is now the 6 ft. curve is left in doubt in places and can be only approximated.

The character of the bottom is such as to cause belief that no material change would take place, except the building up of coral banks. Yet a comparison with sheet 407 Survey of 1852 indicates changes.

The records are generally well kept but not perfect. In some volumes the soundings were not reduced to feet. This had to be done in plotting. In other cases the soundings run from top to bottom of the page with no blank line for first sounding after position. This causes confusion.

Crossings are generally good, yet in some cases not so good. This is more noticeable where the work of one party crosses the work of the other. (Gray Duct - Cracker).

In conclusion I will express the opinion that this sheet could have been protracted, plotted, verified and inked in one half the time had it come to the office blank.

John D. Torrey
6/11/20

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. **4076**

State . **Florida**

General locality **East Coast of Florida.**

Locality **South End of Biscayne Bay and Vicinity.**

Chief of party **Harry Leyboldt**

Surveyed by **Harry Leyboldt and F. E. Oleson.**

Date of survey . **January, February, and March, 1919,**

Scale **1/20,000**

Soundings in . **Feet**

Plane of reference **Mean Low Water**

F.M. Albert **L.M. Mower, W.M. Scaife**
Protracted by **H. Leyboldt.** . Soundings in pencil by **H. Leyboldt, L.W. Burdette**

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 4 Tide books, 0 Marigrams, 4 Boat sheets,

17 Sounding books, 0 Wire-drag books, 0 Photographs.

Data from other sources affecting sheet 2 Level Books. . . .

Remarks: 17 is the total number of sounding books forwarded,- there
being two sounding launches, Gray Duck with 5 and Cracker with 12.

Added a few snags to Ch. 140 (Inset #11) agt 10-19-59